

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application;

1. (Previously Presented) An audio reproducing apparatus, comprising:

a first signal processing circuit for processing input audio signals of N channels;

generating and processing means for inputting left channel directional components and right channel directional components of output audio signals of the first signal processing circuit and generating signals that represent positions of sound images corresponding to the left channel direction components and right channel directional components as sound image components;

a second signal processing circuit for processing audio signals output from the generating and processing means on each channel so as to produce output audio signal having an equivalent sound field of M (where  $M \leq N$ ) electrical - acoustic converting units;

first signal processing means for receiving the output audio signals of the second signal processing circuit and localizing the sound images of the audio signals at any position of a listener; and

second signal processing means for receiving the audio signals from the first signal processing means and equivalently processing the audio signals corresponding to transfer functions from the M electric - acoustic converting

units to both ears of the listener,

wherein the output audio signals of the second signal processing means are reproduced with the M electric - acoustic converting units.

2. (Previously Presented) An audio reproducing apparatus, comprising:

a first signal processing circuit for processing input audio signals of N channels;

a variable attenuating circuit for inputting left channel directional components and right channel directional components of output audio signals of the first signal processing circuit, varying amounts of sound images corresponding to the left channel directional components as sound image components, and outputting signals that represent positions of the sound images;

a second signal processing circuit for processing audio signals output from variably the variable attenuating circuit on each channel so as to produce output audio signals having an equivalent sound field of M (where  $M \leq N$ ) electrical - acoustic converting units;

first signal processing means for receiving output audio signals of the second signal processing circuit and localizing sound images of the audio signal at any position of a listener; and

second signal processing means for receiving the audio signals from the first signal processing means and equivalently processing the audio signals corresponding to

transfer functions from the M electric - acoustic converting units to both ears of the listener,

wherein the output audio signals of the second signal processing means are reproduced with the M electric - acoustic converting units.

3. - 6. (Cancelled)

7. (Currently Amended) The audio reproducing apparatus as set forth in claims 1[[,]] or 2, [[3, 4, 5, or 6,]]

wherein the input signals are signals of which the audio signals of P channels (where  $P \geq N$ ) have been converted into the audio signals of Q channels (where  $P > Q$ ), and

wherein the apparatus further comprises:

a converting circuit for converting the audio signals of Q channels into the audio signals of N channels (where  $P \geq N > Q$ ).

8. (Currently Amended) The audio reproducing apparatus as set forth in claims 1[[,]] or 2, [[3, 4, 5, or 6,]] further comprising:

output means for supplying the output audio signals of the first signal processing circuit outside of the apparatus;

detecting means for detecting a motion of the head of the listener;

controlling means for controlling the second signal processing means corresponding to an output signal of the

detecting means; and

means for wirelessly supplying the output audio signals to the M electric - acoustic converting units.